

## Effects of anxiety reduction training on physiological indices and serum cortisol levels before elective surgery

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### Abstract

#### Background:

Patients awaiting surgery typically experience significant physical and psychological stress. Vital signs and serum cortisol level are altered in response to anxiety. The aim of this study was to assess the effects of preoperative education on physiological indices and cortisol level of female patients undergoing elective surgeries.

#### Materials and Methods:

In this single-blinded randomized controlled trial, 60 women undergoing gynecological elective surgeries in Kowsar Hospital (Qazvin, Iran) were randomly assigned to either control or intervention group. The patients of the intervention group were assessed based on the nursing process after admission. Subjects with anxiety, inadequate awareness, and fear received necessary training on anxiety reduction techniques. The control group merely received routine care. A questionnaire including demographic characteristics, baseline and preoperative vital signs, and serum cortisol level was completed for all subjects. Data were analyzed by descriptive and inferential statistics (Fisher's exact test, paired and independent *t*-tests, and Mann–Whitney U test) in SPSS<sub>17</sub>. *P* values less than 0.05 were considered significant.

#### Results:

The two groups were homogeneous in terms of age (*P* = 0.20), marital status (*P* = 0.50), education (*P* = 0.10), employment status (*P* = 0.13), and admission history (*P* = 0.30). There were no significant differences in baseline vital signs between the intervention and control groups. Before surgery, the mean values of vital signs increased in both the groups. However, the increments were less in the experimental